

## **REMARKS**

### **Status**

This Amendment is responsive to the Office Action dated December 31, 2007, in which Claims 1-20 were rejected. Claim 13 has been canceled without prejudice; Claims 1, 14, and 17-19 have been amended; and new Claims 21-25 have been added. Accordingly, Claims 1-12 and 14-25 are pending in the application, and are presented for reconsideration and allowance.

### **Allowable Subject Matter**

Claims 14, 15, 19 and 20 were objected to as being dependent upon a rejected base claim, but as being allowable if rewritten in independent form including all limitations of the base claim and any intervening claims.

With this Response, Claims 14 and 19 were rewritten in independent form including all limitations of the base claim and any intervening claims. Accordingly, Applicants submit that independent Claims 14 and 19 are in form for allowance over the art of record. As such, allowance of independent Claims 14 and 19 is respectfully requested.

Claim 15 depends from and further defines patentably distinct independent Claim 14, and Claim 20 depends from and further defines patentably distinct independent Claim 19. Accordingly, Applicants submit that dependent Claims 15 and 20 are also allowable over the art of record and respectfully request allowance of dependent Claims 15 and 20 as well.

### **Claim Rejection - 35 USC 103**

Claims 1, 10-13 and 16-18 stand rejected under 35 USC 103 as being unpatentable over US Patent No. 6,132,210 to Lehmann ("*Lehmann*") in view of US Application Publication No. 2003/014350 to Kopelmann et al. ("*Kopelmann*"). This rejection is respectfully traversed.

Claims 2-9 stand rejected under 35 USC 103 as being unpatentable over US Patent No. 6,132,210 to Lehmann ("*Lehmann*") in view of US Application Publication No. 2003/014350 to Kopelmann et al. ("*Kopelmann*") and in further view of US Patent No. 7,234,937 to Sachdeva et al. ("*Sachdeva*"). This rejection is respectfully traversed.

Claim 13 has been cancelled without prejudice.

Independent Claims 17 and 18 have amended to include the allowable subject matter of formerly dependent Claim 14. Accordingly, Applicants submit that independent Claims 17 and 18 are in form for allowance over the cited references. As such, Applicants respectfully request that the rejection of independent Claims 17 and 18 under 35 USC 103 over *Lehmann* in view of *Kopelmann* be withdrawn and the independent Claims 17 and 18 be allowed.

With respect to independent Claim 1, Applicants respectfully submit that neither *Lehmann* nor *Kopelmann*, either alone or in combination, teach or suggest the present invention as defined by independent Claim 1.

*Lehmann* describes a system and method for determining a shade of a patient's tooth including the steps of electronically imaging the patient's tooth to obtain an image which includes each tooth shade as a block of data and comparing the blocks of data to a stored plurality of tooth shades to determine the tooth color (Abstract; Col. 2, lines 35-43). *Lehmann* fails to teach or suggest **comparing a color metric of digital dental image segments to a known color metric of a reference object in the digital dental image so as to determine a location of the reference object within the digital dental image, nor defining a size and location of a window relative to the reference object**, as defined by independent Claim 1.

*Kopelmann* describes a system and method for providing information to assist in the correct placement of brackets on one or more teeth including providing a virtual representation of the teeth with a virtual representation of the brackets placed on the virtual representation of the teeth in a position and orientation in which the brackets are to be attached to the teeth in real-life in order to achieve the desired treatment result (Abstract; Page 1, paragraph 0009). *Kopelmann* enables an orthodontist to virtually attach brackets to the teeth via the virtual representation of the teeth and determine the proper position based on his experience (Page 1, paragraph 0010). *Kopelmann* fails to teach or suggest **comparing a color metric of digital dental image segments to a known color metric of a reference object in the digital dental image so as to determine a location of the reference object within the digital dental image**,

nor **defining a size and location of a window relative to the reference object**, as defined by independent claim 1.

In view of the above, Applicants respectfully submit that neither *Lehmann* nor *Kopelmann*, either alone or in combination, teach or suggest the present invention as defined by independent Claim 1. As such, Applicants respectfully request that the rejection of independent Claim 1 under 35 USC 103 over *Lehmann* in view of *Kopelmann* be withdrawn and that independent Claim 1 be allowed.

Further, since Claims 10-12 and 16 depend from and further define patentably distinct independent Claim 1, Applicant respectfully requests that the rejection of dependent Claims 10-12 and 16 under 35 USC 103 also be withdrawn and dependent Claims 10-12 and 16 be allowed as well.

#### **Added Claims**

New independent Claim 21 and Claims 22-25 depending therefrom have been added.

Independent Claim 21 includes limitations similar to those described above with respect to independent claim 1. As such, for reasons similar to those described above with respect to independent claim 1, Applicants submit that the art of record fails to teach or suggest **segmenting a digital dental image into a plurality of regions, locating a reference object within the digital dental image by checking each of the plurality of regions for a predetermined image property of the reference object, and positioning and sizing a window about the dental target with the digital dental image relative to the located reference object**, as defined by independent Claim 21.

Accordingly, Applicants submit that independent Claim 21 is in form for allowance over the art of record. Additionally, since Claims 22-25 depend from and further define patentably distinct independent Claim 21, Applicants submit that Claims 22-25 are also in form for allowance over the art of record. As such, Applicants respectfully request allowance off added Claims 21-25.

## Summary

Should the Examiner consider that additional amendments are necessary to place the application in condition for allowance, the favor is requested of a telephone call to the undersigned counsel for the purpose of discussing such amendments.

For the reasons set forth above, it is believed that the application is in condition for allowance. Accordingly, reconsideration and favorable action are respectfully solicited.

Respectfully submitted,



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